# Technical Workshop on Estuarine Habitat in the Bay Delta Estuary

Managing the Low Salinity Zone to Improve Estuarine Habitat and Protect Fish Populations

March 27, 2012, 9:00 am – 4:30 pm CalEPA's Coastal Room, 2<sup>nd</sup> Floor 1001 "I" Street, Sacramento

## **Purpose**

- Characterize the response of selected biological indicators and ecological processes to changing locations of the low salinity zone in the Bay Delta Estuary
- Evaluate the utility of three-dimensional models in salinity management

## **Desired Outcomes**

- 1. Identify which biological indicators and ecological processes can be expected to respond to changing locations of the low salinity zone (LSZ)
- 2. Identify how changing locations of the LSZ and changing volumes of estuarine habitat affect aquatic organisms
- 3. Discuss the opportunities and constraints of using both one- and three-dimensional models to map and quantify changing volumes of estuarine habitat as the LSZ moves among several locations between Carquinez Strait and the western Delta
- 4. Consider how year-to-year variation in Delta outflow and water management decisions affect the volume and value of estuarine habitat across all seasons of the year

9:00 – 9:10	Welcome and introductions	Karen Schwinn USEPA
9:10 – 9:20	Agenda overview	Brock Bernstein
9:20 -10:00	Current Perspectives on Salinity Management in the Bay Delta Estuary	Bruce Herbold USEPA
10:00 - 10:40	Moving Toward 3-D Models of Estuarine Processes	Michael MacWilliams Delta Modeling Assoc.
10:40 - 10:50	Workgroup instructions and assignments	Brock Bernstein
10:50 - 12:15	First workgroup session – Prepare first draft of discussion summaries	
12:15 – 1:30	Working lunch Second workgroup session – Review and revise discussion summaries	
1:30 – 2:30	Third workgroup session – Review and revise discussion summaries	
2:30 – 2:45	Break	
2:45 – 4:15	Group discussion – discussion summaries	Brock Bernstein

# Workgroup process

This workgroup process is intended to increase the amount of direct interaction among participants, accelerate the refinement of ideas and products through multiple rounds of review and revision, and ensure that participants have the opportunity to address all topics. The process involves the following steps:

- Break the large group into four roughly equally sized groups
- Assign a topic to each small group
- Assign a discussion leader and a reporter for each small group
- First workgroup session: each group develops a solution to the assigned problem
- Reporters then rotate among groups (see figure)
- Second workgroup session: reporters brief their new groups on what the previous group produced and each group critiques and revises the previous group's product
- Reporters then rotate again
- Third workgroup session: repeat the briefing, critique, and revision of the previous group's product
- Final session: reconvene the large group and hear the reporters' summaries of how the product developed as it moved through several small groups

The reporters remain with the same topic as they rotate among the small groups. This helps provide some continuity as the different topics cycle through the small groups.

The following figure illustrates how reporters move among the small groups at the end of each workgroup session.

# Reporter moves to Grp 2 Group 1 Group 2 Reporter moves to Grp 1 Group 3

Reporter moves to Grp 4

# Workgroup questions:

- 1. Using the list provided as a starting point, what biological indicators and ecological processes can be expected to respond to, and measure the ecological response to, changing locations of the low salinity zone (LSZ)?
- 2. How do changing locations of the LSZ and changing volumes of estuarine habitat affect the aquatic organisms (e.g., reproduction, survival, abundance, diversity, of key aquatic organisms (use list provided as a starting point)?
- 3. How can both one- and three-dimensional models be effectively used to map and quantify changing volumes of estuarine habitat as the LSZ moves among several locations between Carquinez Strait and the western Delta?
- 4. How do year-to-year outflow variation and water management decisions change the volume and value of estuarine habitat across all seasons of the year?

